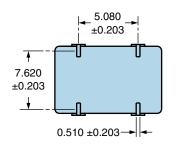


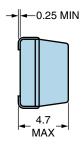
ELECTRICAL SPECIFICATIONS		
Nominal Frequency	40.000MHz	
Frequency Tolerance/Stability	±100ppm Maximum (Inclusive of all conditions: Calibration Tolerance at 25°C, Frequency Stability over the Operating Temperature Range, Supply Voltage Change, Output Load Change, First Year Aging at 25°C, Shock, and Vibration)	
Aging at 25°C	±5ppm/year Maximum	
Operating Temperature Range	0°C to +70°C	
Supply Voltage	5.0Vdc ±10%	
Input Current	35mA Maximum	
Output Voltage Logic High (Voh)	Vdd-0.5Vdc Minimum with HCMOS Load, 2.4Vdc Minimum with TTL Load, IOH = -16mA	
Output Voltage Logic Low (Vol)	0.4Vdc Maximum with TTL Load, 0.5Vdc Maximum with HCMOS Load, IOL = +16mA	
Rise/Fall Time	8nSec Maximum (Measured over 20% to 80% of waveform with HCMOS load or from 0.4Vdc to 2.4Vdc with TTL load.)	
Duty Cycle	50 ±10(%) (Measured at 50% of waveform with HCMOS Load or at 1.4Vdc with TTL Load)	
Load Drive Capability	10TTL or 50pF HCMOS Load Maximum	
Output Logic Type	HCMOS	
Output Control Function	Tri-State (High Impedance)	
Tri-State Input Voltage (Vih and Vil)	+2.0Vdc Minimum to enable output, +0.8Vdc Maximum to disable output (High Impedance), No Connect to enable output.	
Absolute Clock Jitter	±100pSec Maximum	
One Sigma Clock Period Jitter	±25pSec Maximum	
Start Up Time	10mSec Maximum	
Storage Temperature Range	-55°C to +125°C	

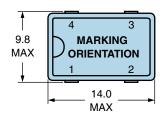
ENVIRONMENTAL & MECHANICAL SPECIFICATIONS		
Fine Leak Test	MIL-STD-883, Method 1014, Condition A	
Gross Leak Test	MIL-STD-883, Method 1014, Condition C	
Mechanical Shock	MIL-STD-202, Method 213, Condition C	
Resistance to Soldering Heat	MIL-STD-202, Method 210	
Resistance to Solvents	MIL-STD-202, Method 215	
Solderability	MIL-STD-883, Method 2003	
Temperature Cycling	MIL-STD-883, Method 1010	
Vibration	MIL-STD-883, Method 2007, Condition A	



### **MECHANICAL DIMENSIONS (all dimensions in millimeters)**





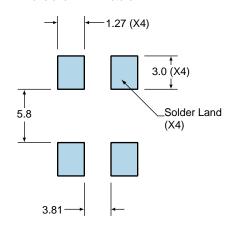


PIN	CONNECTION
1	Tri-State
2	Ground
3	Output
4	Supply Voltage

LINE	MARKING
1	ECLIPTEK
2	40.000M
3	XXYZZ XX=Ecliptek Manufacturing Code Y=Last Digit of Year ZZ=Week of Year

#### **Suggested Solder Pad Layout**

All Dimensions in Millimeters

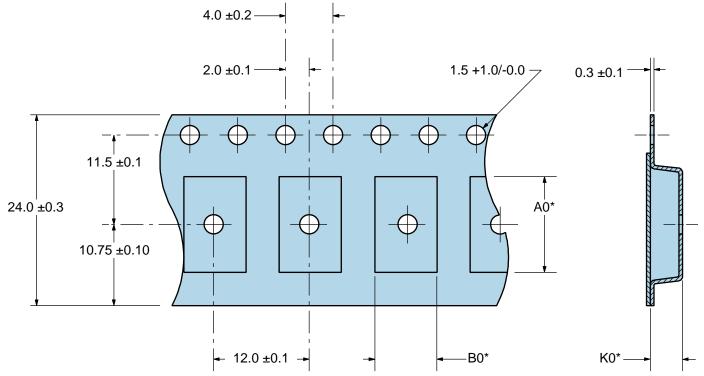


All Tolerances are ±0.1

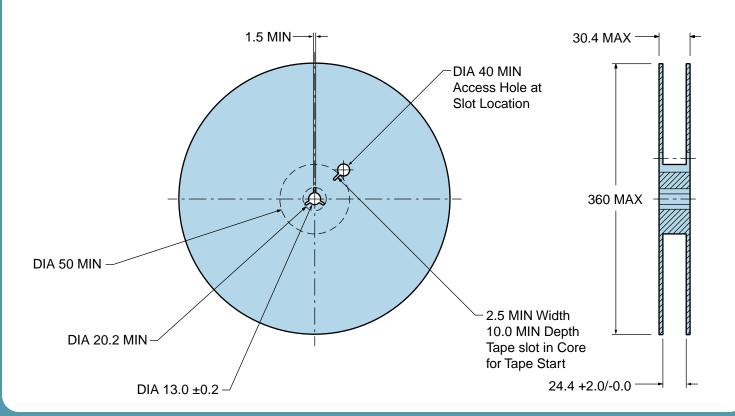


## **Tape & Reel Dimensions**

Quantity Per Reel: 1,000 units

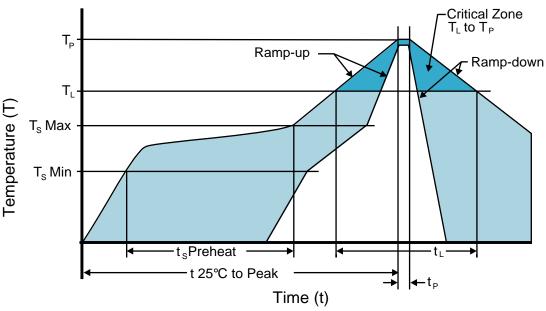


\*Compliant to EIA 481A





### **Recommended Solder Reflow Methods**



#### Low Temperature Infrared/Convection 240°C

T <sub>S</sub> MAX to T <sub>L</sub> (Ramp-up Rate)	5°C/second Maximum
Preheat	
- Temperature Minimum (T <sub>s</sub> MIN)	N/A
- Temperature Typical (T <sub>S</sub> TYP)	150°C
- Temperature Maximum (T <sub>s</sub> MAX)	N/A
- Time (t <sub>s</sub> MIN)	60 - 120 Seconds
Ramp-up Rate (T <sub>L</sub> to T <sub>P</sub> )	5°C/second Maximum
Time Maintained Above:	
- Temperature (T∟)	150°C
- Time (t∟)	200 Seconds Maximum
Peak Temperature (T <sub>P</sub> )	240°C Maximum
Target Peak Temperature (T <sub>P</sub> Target)	240°C Maximum 1 Time / 230°C Maximum 2 Times
Time within 5°C of actual peak (tp)	10 seconds Maximum 2 Times / 80 seconds Maximum 1 Time
Ramp-down Rate	5°C/second Maximum
Time 25°C to Peak Temperature (t)	N/A
Moisture Sensitivity Level	Level 1

### Low Temperature Manual Soldering

185°C Maximum for 10 seconds Maximum, 2 times Maximum.

#### **High Temperature Manual Soldering**

260°C Maximum for 5 seconds Maximum, 2 times Maximum.